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Society 2.0: The challenges and consequences for science

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1. Introduction

Each and every day, a minority part of the human race continues to excel and delve deeper into the world of science, unearthing new discoveries and demystifying the impossibilities of times gone by and accelerating the race into the future. Each day brings about scientific and technological breakthroughs, possibilities for self-improvement and new conquests, some of which are useful and practical and other ones just fanfare, to say the least. The human race is intelligently advancing far beyond the imaginations of scientists of the previous decades and the future holds even more room for the intelligent than the complacent. The question the majority of the human race may have is to what end is all this intelligence about? Are we really moving towards greater efficiency or are we diving deep into complexity? Is Society 2.0, that is, creating efficiency through implementation of science and technology, the solution for now and the future?

2. The telescopic view

The challenges for science can be described by what I will name 'the telescopic view'. In a nutshell, there are two worlds on earth, one occupied by the scientist and the other occupied by the majority of the human race hereinafter named the 'people'. In between there is a huge expanse named 'reality', and the challenge for science is to bridge the gap between the two worlds. A typical scenario is that of genetically modified organisms (GMOs) and the food chain. It is undoubtedly true that GMO breakthroughs could make a positive impact to address some of the technological, quality and social issues affecting the global food supply today. Though the GMO debate is on-going, technological evidence exists to prove to some extent the safety of GMOs as food. To the scientist working in the laboratory and coming up with state-of-the-art technology with the vision of seeing a positive change at the end, is like an astronomer looking through his telescope, seeing the most beautiful star and feeling he could just grab hold of it. In reality, the challenge for science is to influence the perceptions of the people towards positively viewing, accepting and utilizing scientific outcomes to their benefit. In the same way, the perceived benefits of the idea behind Society 2.0 are immense; the challenge, however, is the implementability, especially in marginalized spheres. The threat to the success of this initiative lies in the hands of the intended benefactors, which is a challenge to researchers.

On the other hand, science and technology has some clearly perceivable benefits that have tangible outcomes. Nowadays, distance is no longer defined geographically, but is more or less defined technologically. Major scientific strides, for example in communication technology, have made it possible for people to overcome distance by just a video-phone call away. Business deals are just a click away, not to mention major strides in the banking sector. Technology continues to simplify the lives of those to whom it is accessible, and every day humans are becoming more independent of other humans. To some extent, businesses that intensively utilize science and technology are somewhat more efficient. Perhaps this, amongst other things, is an objective behind moving towards Society 2.0. However, from an individualistic perspective, the consequences for science are beginning to creep up in extremely subtle ways more than imagined. While it is easy to log on to the internet, do your grocery shopping and wait for the delivery service, would it be possible that we are now breeding a cyber-dependent species? More and more solutions to life's scenarios are available online, more and more convenience is offered each time and one wonders what new convenience tomorrow will bring. Is the technologically astute population at more risk of developing certain inclinations

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towards particular conditions (mental or physical)? No concrete evidence exists to answer such assumptions but one still wonders whether the interpersonal fabric of humanity will survive the science and technology menace. However, what is apparent is that, to some extent, science and technology have made an impact on interactions between the people. For example, it seems trendier to find a cyber-partner than to meet your life partner the old-fashioned way. Future generations are more at risk of the unimaginable consequences of science as their continued exposure to science is now inevitable. The human race can only wait and see.

3. The consequences

The consequences for science particularly in the various fields of research can also be analysed through the telescopic view, but this time the two worlds are comprised of socially different entities. In one world there are the developed nations, which are spearheading technological advancements and scientific research initiatives, and in the other world we have the developing countries, which have bigger fish to fry on limited capacity anyway, such as tackling hunger, poverty, disease, war and crime amongst other social issues. The expanse in this case is like an impenetrable time capsule surrounding the second world. The dynamics of this time capsule are complicated and the consequences are that those in the developing countries are constantly being bombarded with information from the developed countries that they cannot process. In other words, science is rather useless and the impact of Society 2.0 is rather fictitious in this context. In totality, with respect to issues of science, technology, research and development there is an imminent and unavoidable risk of less developed communities being further alienated from their more developed counterparts. There are numerous initiatives being taken by the developed world in order to try and technologically emancipate their less developed counterparts, but the uptake is minimal and this is a challenge Society 2.0 will have to deal with. An example of this technological quagmire is the issue of educating the lucky few from developing countries, by teaching them state-of-the-art science and expecting them to implement the knowledge in their countries of origin. Though noble an idea, its success lies at the mercies of the dynamics influencing the time capsule in which the second world is caught up. The slow rate of uptake of technology means that by the time science is fully incorporated into solving various issues, the developed world is already miles away, ready with new scientific initiatives with yet greater potential outcomes. Again, it is like an astronomer who this time is the fellow from a developing country, newly educated in the science and faced with limitless possibilities. To this fellow, the possibilities of technological development are so close, almost grasped in the hand, but yet so far away from the reality of potential implementation. It is as if all knowledge, compared with the reality is a great deception. It is not practical to imagine that civil society organizations and non-governmental organizations operating in technologically marginalized environments can improve their efficiency of operations and implement scientific solutions to the challenges at hand. Furthermore, the issue of information democracy is left to the brave to tackle as the complexity of issues pertaining to food security, poverty, crime and war continue to overlap with each other. This is the challenge research institutions will face in taking the idea of Society 2.0 to developing nations.

4. Conclusions

In view of these and other issues it can be concluded that a solid interdisciplinary framework is required to advance the idea of Society 2.0 and a stratified approach is necessary to moderate its implementation across different scientific, social and developmental levels. Indeed, the future trends seem to point more and more towards scientific and technological solutions for everyday life situations. The focus should be on narrowing reality down to the elimination of the illusion caused by the telescopic view and in particular on breaking through the time capsule that surrounds the developed world so as to realize the goals of Society 2.0.

Though the challenge to science is apparent in this regard one wonders what the consequences are to information democracy. Who defines democracy and by whose standards is it measured? It is a fine line I suppose one has to tread on quite carefully as if one is walking barefoot on hot coals. Is there no social risk associated with being overly active in the digital sphere and will this not pose a future challenge in cyber terrorism?

Society 2.0 is a noble idea that will go a long way in assisting the work of individuals, NGOs, civil society organizations, research organizations and the business world in general in their operations, but one wonders about the efficacy of such an initiative, given the imbalance in global technological access. While it is a useful developmental tool to try and solve challenges that NGOs, for example, face technologically in whatever sphere of operation, the usefulness is rather subjective and dependent on which of the two worlds one is living in. For scientists it is easy to adapt to changes that may arise and to the speeds of change, after all, scientists spearhead technological change, but this may not be the case with other groups in society and across societies, and the telescopic view remains a major reality and challenge to science.